

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF THE CLAIMS

1. (Currently amended) A two-shaft vacuum pump comprising:
~~two shafts (12, 14) first and second rotor shafts, wherein one of the shafts~~
~~(14) is driven by~~
an electric drive motor which drives one of the motor shafts (20) and
~~comprises a motor rotor (26), the drive motor (20) being a synchronous motor, wherein~~
the motor rotor (26) is being permanently excited; and
a synchronous motor power-limiting device (58) ~~is provided~~ which limits
the motor power (P_M) to a fixed maximum motor power (P_{Mmax}) in a limiting range above
a fixed rated motor speed (n_N).
2. (Currently amended) The two-shaft vacuum pump according to
claim 1, wherein the power-limiting means (58) adjusts, in the limiting range, the a
~~the a~~ phase angle between the a magnetic field of the rotor and the an electrical stator field to
an angle other than 90°.
3. (Currently amended) The two-shaft vacuum pump according to
claim 1, wherein the power-limiting means (58) reduces the a stator current in the
limiting range.
4. (Currently amended) The two-shaft vacuum pump according to
claim 1, wherein the power-limiting means device (58) adjusts, in the limiting range, the
~~a~~ phase angle between the magnetic field of the rotor and at least one of the electrical
stator field and/or the stator current as a function of the motor speed.
5. (Currently amended) The two-shaft vacuum pump according to
claim 1, wherein the driven rotor shaft (14) driven by the drive motor is of ~~overhung~~

cantilevered configuration and is supported without a supporting bearing at a the motor-side end.

6. (Currently amended) The two-shaft vacuum pump according to claim 1, wherein the motor rotor (26) comprises a plurality of permanent magnets (38) arranged on the an outside surface of the a motor rotor body (34).

7. (Currently amended) The two-shaft vacuum pump according to claim 6, wherein the motor rotor (26) comprises a rotor enclosure (40) of a nonmagnetic material which externally encloses the motor rotor body (34) and the plurality of permanent magnets (38).

8. (Currently amended) The two-shaft vacuum pump according to claim 1, wherein on the a stator side, a can (42) of a nonmagnetic material is provided ~~which~~ for gas-tightly seals sealing the motor rotor (26) towards the motor stator (28).

9. (Currently amended) The two-shaft vacuum pump according to claim 8, wherein a pump cover (48) holding the can (42) and a stator casing (50) surrounding the motor stator (28) are integrally formed.

10. (Currently amended) The two-shaft vacuum pump according to claim 7, wherein at least one of the plurality of permanent magnets (38) of the rotor ~~are~~ made of includes rare earths earth elements.

11. (New) A two-shaft vacuum pump comprising:
a pair of motor shafts;
a synchronous, permanently excited drive motor directly connected to one of the motor shafts; and
a phase angle adjusting means for adjusting a phase angle between a motor rotor magnetic field and an least one of a motor stator magnetic field and a stator current.